

Burlington International Airport 14 CFR Part 150 Update 2018 Noise Compatibility Program

HMMH Report No. 308770

??Date

Prepared for:

City of Burlington, Vermont

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3 Existing Noise Compatibility Program

This NCP builds on the previous noise compatibility studies at BTV. The existing NCP includes 15 FAA-approved measures with a mix of operational, implementation, and land use elements. The FAA's 2008 Record of Approval (ROA), for the 2008 NCP submission, listed NCP elements in the order presented below. The 2008 NCP, and associated ROA, revised a single measure. Appendix A presents a copy of the 2008 ROA.

The following discussion of the NCP has been organized in the same manner as the FAA's 2008 ROA. The 2015 and 2020 NEM are based on empirical data reflecting the current implementation status of these noise abatement measures. The United State Air Force's Record of Decision for the F-35A Operational Basing Environmental Impact Statement (USAF EIS), agreed to adhere to the 2008 NCP.¹⁰

3.1 Airport Operations Measures

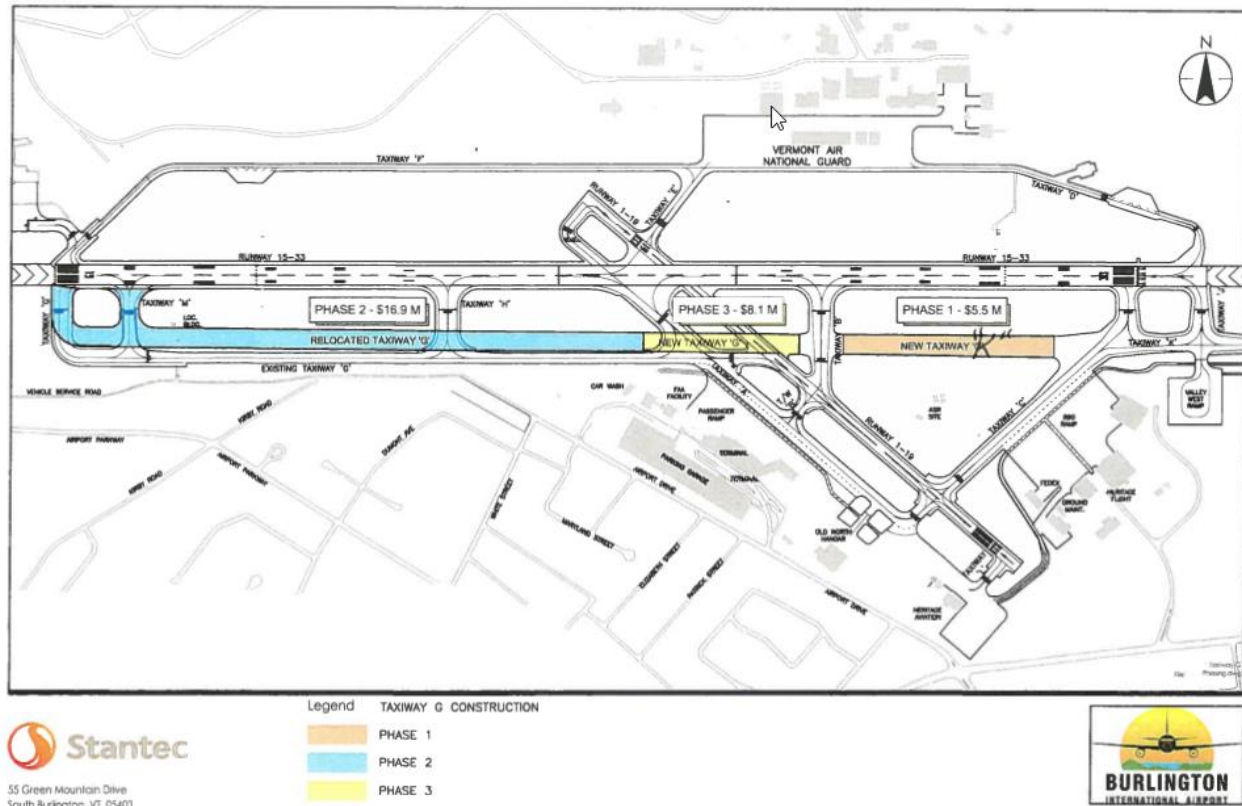
3.1.1 Extension of Taxiway G

Taxiway G would be extended from the existing intersection with Taxiway A to Taxiway C, remaining parallel with Runway 15/33 in order to reduce noise levels for residents along Airport Drive (2008 ROA Measure 1).

Status: In progress. The FAA approved the extended Taxiway G at the planning level; it is shown on the updated 2012 Airport Layout Plan. Current Taxiway G is on the northwest side of the airfield and current Taxiway K is on the southeast side. The complete Taxiway G extension will create a single taxiway parallel to Runway 15-33 and linking to the current Taxiway K. The multi-phase project is scheduled for completion sometime around 2020. Phase 1 of the construction, started early November 2015 and was completed in July 2016.. Phase 2 started October 2016 and is schedule to be completed by the end of calendar year 2018. Phase 3 is schedule to be completed by 2020, and would complete the connection between Taxiway A and Taxiway C as described in this NCP measure. The 2015 NEM reflects the taxiway layout before the start of the project and the 2020 NEM reflects the forecasted taxiway layout including the extended Taxiway G.

[Editorial note: the above discussion maybe updated]

¹⁰ Document was released September 2013. The Air Force issued a Record of Decision (ROD) December 2, 2013. A copy is available from the Defense Technical Information Center website at <http://www.dtic.mil/docs/citations/ADA595409>



Place holder Figure – Taxiway G and K phasing

Source, Stantec, prepared under contract to the City of Burlington

3.1.2 Terminal Power Installation and APU/GPU Restrictions

Installation of terminal power hookups for aircraft would reduce the need for aircraft to use internal auxiliary power units (APU) or ground power units (GPU). Following the installation, a rule prohibiting the use of APUs or GPUs between 10:00 p.m. and 7:00 a.m., would be put in place (2008 ROA Measure 2).

Status: Not fully implemented. The airport terminal has “aircraft ground power” (referred to as “terminal power hooks” in the ROA and the 1989 NCP document) capability at nine gate locations that have passenger boarding bridges. There are 11 gates in total.

3.1.3 Nighttime Bi-direction Runway Use

To minimize late-night operations over the City of Winooski, the air traffic control tower would use Runway 15 for departure and Runway 33 for arrivals, traffic conditions permitting (2008 ROA Measure 3).

Status: Not implemented. The BTV ATCT is closed from midnight until 5:30 AM, which makes implementation of this measure infeasible during these hours. The ATCT has not implemented the procedure during the remaining “nighttime” hours, as defined by DNL; i.e., from 10 PM to midnight and 5:30 to 7:00 AM.

[Editorial note: the above discussion maybe updated.]

3.1.4 Noise Abatement Flight Paths for Runway 15 and 33 Departures, and 15 Arrivals

New procedures¹¹ would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees (2008 ROA Measure 4).

Status: Not fully implemented. Current procedures involve assignments that result in: (1) most west-bound Runway 15 departures making initial turns to a heading of 190, (2) most west-bound Runway 33 departures maintaining runway heading until past the City of Winooski, and (3) most east-bound Runway 33 departures initiating right hand turns over the City of Winooski.

[Editorial note: the above discussion maybe updated.]

3.1.5 Voluntary Limits of Military C-5A Training

An informal agreement with the military limits C-5A operations to only necessary takeoffs and landings (2008 ROA Measure 5).

Status: Not fully implemented. An agreement is not currently in place. However, BTV Operations strongly discourage C-5 training at the airport, because the runways are only 150 feet wide and wake turbulence from C-5 operations tear up the runway-edge lighting. Historically, the military has always coordinated the arrival of a C-5 with BTV Operations because of the constraints on the airfield. Furthermore, all transient military aircraft are limited to two practice approaches at BTV.

[Editorial note: the above discussion maybe updated.]

3.1.6 Voluntary Minimization of F-16 Multiple Aircraft Flights

Military personnel will schedule as many single-aircraft, as opposed to multiple-aircraft, flights as possible (2008 ROA Measure 6).

Status: Not fully implemented. Most F-16 flights require between 2 and 4 aircraft, depending on mission and tactical scenario. Based on observations, F-16s in multiple aircraft flights typically operate with some distance between individual aircraft, so that the aircraft do not produce their maximum noise levels at the same locations at the same time; while aircraft are operating close in time, they are not simultaneous in most cases.

[Editorial note: the above discussion maybe updated.]

3.1.7 Voluntary Army Guard Helicopter Training Controls

The National Guard helicopter training operations will be conducted away from the airport when conditions permit. In terms of long range planning, the Guard should consider consolidating operations at Camp Johnson (2008 ROA Measure 7).

Status: Not implemented. The National Guard has continued training operations at BTV.

[Editorial note: the above discussion maybe updated.]

¹¹ "New procedures" was the language used in the 1989 NCP.

3.2 Monitoring and Review Elements

3.2.1 Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP. This measure also included the recommendation of the Technical Advisory Committee as a Noise Abatement Committee and purchase of a permanent noise monitoring system (2008 ROA Measure 8).

Status: Not fully implemented. The City of Burlington, Vermont updated the BTV NEM in 1997, 2006 and 2015. The City updated the NCP in 2008. This documentation represents the second NCP update. The City of Burlington, Vermont is planning to prepare an NEM update in the next one to two years.

3.2.2 Flight Track Monitoring

Utilization of an outside firm to perform flight track analysis of radar data on a temporal sampling basis (2008 ROA Measure 9).

Status: Not fully implemented. Flight tracks for 2015 NEM were developed from calendar year 2012 radar data samples provided by the FAA.

3.3 Land Use Measures

Most of the following land use measures require noise contours, and would use the 2015 and 2020 NEM once they are found in compliance with 14 CFR Part 150 by FAA. As discussed in Section 1.2, the City recommends using the extents of the 2015 and 2020 NEM contours for land use planning.

3.3.1 Land Acquisition and Relocation

Noncompatible land use includes residences within the 65 dB DNL contour. This program is voluntary. Eligible property owners will be paid fair market value for their property at the highest and best rate, and provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the "Uniform Act") and implementation of Department of Transportation (DOT) regulations. The City, in coordination with applicable jurisdiction, will conduct studies to define program boundaries and to identify options for compatible reuse of the acquired properties.

The City, and the jurisdiction within which the program is implemented, will develop a land use plan for the area surrounding the airport that is impacted by noise. This effort will follow the guidance contained in the FAA document "Management of Acquired Noise Land: Inventory Reuse Disposal" dated January 30, 2008, or later superseding documents. (2008 ROA Measure 10).

Status: Implemented. The City has purchased some, and is in the process of purchasing additional, permanent residences in the 65 dB DNL contour. Since the start of federal Fiscal Year 2007 (started October 1, 2006) through September 2015, the FAA has issued 12 grants to the City of Burlington totaling approximately \$32.6 million.¹² Note: As with most grant programs, the FAA does have additional eligibility requirements aside from the property being within the 65 dB DNL NEM contour. FAA's eligibility requirements are best described in FAA's Airport Improvement Program (AIP) Handbook.¹³ As noted previously in this document, both the City of

¹² FAA grant data is available at http://www.faa.gov/airports/aip/grantapportion_data/

¹³ FAA's current guidance, policy and procedures are documented in FAA Order 5100.38D "Airport Improvement Program (AIP) Handbook", effective September 30, 2014. http://www.faa.gov/airports/aip/aip_handbook/

Burlington and other local municipalities have expressed an interest in ending the voluntary acquisition program and transitioning to other mitigation options. The City's recommendation regarding future of the Land Acquisition and Relocation measure is discussed later in this document.

[Editorial note: the above discussion maybe updated.]

3.3.2 Sound Insulation

Qualified compatible residential and noise sensitive land uses within the 65 and 70 dB DNL contours, and qualified compatible non-residential land uses in the 75 dB DNL contour, would be included in a sound insulation program (2008 ROA Measure 11).

Status: Not implemented. To date, the City has chosen to apply available funding to land acquisition. The City's recommendation regarding future sound insulation around BTV is discussed later in this document.

3.3.3 Easement Acquisition Related to Soundproofing

The City would attempt to negotiate avigation easements within the 65 dB DNL contour, in return for sound attenuation assistance (2008 ROA Measure 12).

Status: Not implemented. To date, the City has chosen to apply available funding to land acquisition. The City's recommendation regarding easements for properties around BTV is discussed later in this document.

3.3.4 Airport Zoning Overlay District

Land use measure that would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation (2008 ROA Measure 13).

Status: Not implemented. Although a formal Airport Zoning Overlay District has not been adopted, the City of South Burlington has actively worked to consider airport noise when addressing land-use decisions around the airport. The City's recommendation regarding an Airport Zoning Overlay District around BTV is discussed later in this document.

3.3.5 Easement Acquisition for New Development

Easements would be obtained for new development within the 65, 70 and 75 dB DNL contours (2008 ROA Measure 14).

Status: Not implemented. The City's recommendation regarding easements around BTV is discussed later in this document.

3.3.6 Real Estate Disclosure

A real estate disclosure policy would be developed for land uses within the 65 DNL contour, and implemented through revisions to zoning ordinances (2008 ROA Measure 15).

Status: Not implemented. The airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour. However, outside of the Part 150 process, a disclosure of airport noise, particularly related to anticipated changes of Vermont Air National Guard Aircraft, has been included in many real estate transactions. The City's recommendation regarding future real estate disclosures around BTV is discussed later in this document.